Appl. No. 10/037,806 Amdt. dated July 12, 2004 Reply to Office action of May 20, 2004

REMARKS/ARGUMENTS

Applicant acknowledges receipt of the final Office action dated May 20, 2004. In that action, the Examiner: 1) rejected claims 12-28 as allegedly anticipated by Trainin (U.S. Patent Application Publication No. 2002/0144073); and 2) rejected claims 1, 3-11, 29-30, and 32-38 as allegedly unpatentable over Trainin in view of Roohparvar (U.S. Patent No. 6,504,768).

With this Preliminary Amendment, Applicant amends claims 1, 3, 12, 13, 19, 26, 29, and 32. Applicant believes the pending claims are allowable over the art of record and respectfully request reconsideration.

I. CLAIM REJECTIONS

A. Claim 1

Claim 1 stands rejected as allegedly unpatentable over Trainin in view of Roohparvar. Applicant amends claim 1 to obviate the Examiner's contention that a hardware device can be interpreted to be a bus.

Claim 1 specifically recites: "performing, by a software stream, heap memory operations on a first end of a linked list of free heap memory of a heap pile; and concurrently returning a return block of heap memory, by a hardware device that used the return block of heap memory, to the heap pile at a second end of the linked list of free heap memory." Applicant respectfully submits that a bus merely "communicates," and does not "use." The combination of Trainin and Roohparvar fails to teach or fairly suggest these limitations.

Based on the foregoing, Applicant respectfully submits that claim 1 and all claims that depend from claim 1 (claims 3-11) should be allowed. Applicant amends claim 3 to reflect the amendments to claim 1.

B. Claim 12

Claim 12 stands rejected as allegedly anticipated by Trainin. Applicant amends claim 12 to obviate the Examiner's contention that a hardware device can be interpreted to be a bus.

Claim 12 specifically recites: "returning a return block, by a hardware device that used the return block, to the linked list by placing the return block at the end of the linked list." Trainin fails to teach or fairly suggest these limitations.

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Based on the foregoing, Applicant respectfully submits that claim 12 and all claims that depend from claim 12 (claims 13-18) should be allowed. Applicant amends claim 13 to reflect the amendments to claim 12.

C. Claim 19

Claim 19 stands rejected as allegedly anticipated by Trainin. Applicant amends claim 19 to obviate the Examiner's contention that a hardware device can be interpreted to be a bus.

Claim 19 recites "allowing a hardware device that uses blocks of heap memory to add the blocks of heap memory to the linked list of free blocks of heap memory at a second end of the linked list." Trainin falls to expressly teach or fairly suggest these limitations.

Based on the foregoing, Applicant respectfully submits that claim 19 and all claims that depend from claim 19 (claims 20-28) should be allowed. Applicant amends claim 26 to reflect the amendments to claim 19 and to correct a typographical error.

D. Claim 29

Claim 29 stands rejected as allegedly unpatentable over Trainin in view of Roohparvar. Applicant amends claim 29 to obviate the Examiner's contention that a hardware device can be interpreted to be a bus.

Claim 29 recites: "the software stream executed on the microprocessor removes blocks of heap memory from a beginning of the heap pile; and simultaneously the hardware device returns blocks of heap memory used by the hardware device to an end of the heap pile." The combination of Trainin and Roohparvar fails to teach or fairly suggest these limitations.

Based on the foregoing, Applicant respectfully submits that claim 29 and the claims that depend from claim 29 (claims 30-38) should be allowed. Applicant amends claim 32 to reflect the amendments to claim 29.

II. CONCLUSION

Applicant respectfully requests reconsideration and allowance of the pending claims. If the Examiner feels that a telephone conference would

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expedite the resolution of this case, he is respectfully requested to contact the undersigned.

In the course of the foregoing discussions, Applicant may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised, but which may be raised in the future.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Hewlett-Packard Company Deposit Account Number 08-2025 and enter any time extension(s) necessary to prevent this case from being abandoned.

Respectfully submitted.

Mark E. Scott

PTO Reg. No. 43,100

CONLEY ROSE, P.C.

(713) 238-8000 (Phone) (713) 238-8008 (Fax)

ATTORNEY FOR APPLICANT

HEWLETT-PACKARD COMPANY Intellectual Property Administration Legal Dept., M/S 35 P.O. Box 272400 Fort Collins, CO 80527-2400